

### Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims:

1. (Currently Amended) A photoelectric~~Photoelectric~~ detection device comprising a matrix of elementary detectors on an insulating substrate-(1), each of the said elementary detectors comprising a stack consisting of a lower electrode-(2), a layer of a photosensitive material-(3) and a phototransparent upper electrode-(4), the said-upper electrode being common to all the elementary detectors, each of the lower electrodes (2)-being connected independently of one another to a sense circuit, characterized:  
———~~in that~~wherein the lower electrodes (2)-are each positioned on an individualized insulating zone (6)-which is elevated with respect to the insulating substrate-(1); and  
———~~and in that~~ the upper electrode (4)-is not flat and is ~~furthermore~~-inserted between two adjacent zones (6)-until it reaches a level below that of the lower electrodes.
2. (Currently Amended) The photoelectric~~Photoelectric~~ detection device according to Claim 1, wherein~~characterized in that~~ the insulating substrate (1)-consists of a layer of insulating material deposited on a signal processing circuit.
3. (Currently Amended) The photoelectric~~Photoelectric~~ detection device according to Claim 1, wherein~~characterized in that~~ the zones (6)-each consist of an individualized additional insulating layer deposited on the insulating substrate-(1).
4. (Currently Amended) The photoelectric~~Photoelectric~~ detection device according to Claim 1, wherein~~characterized in that~~ the zones (6)-form an integral part of the insulating substrate-(1).

5. (Currently Amended) ~~The photoelectric~~Photoelectric detection device according to Claim 1, ~~wherein~~characterized in that the zones (6) have a raised shape, so that the photosensitive detection layers (3) of two adjacent pixels face one another substantially vertically at the pixel edge, with strictly opposite polarities.

6. (Currently Amended) ~~The photoelectric~~Photoelectric detection device according to Claim 1, ~~wherein~~characterized in that the photoelectric detectors are ~~composed of~~comprise PIN, NIP, PI, NI, IP or IN diodes.

7. (Currently Amended) ~~The photoelectric~~Photoelectric detection device according to Claim 1, ~~wherein~~characterized in that the photosensitive material (3) is based ~~on~~comprises silicon.

8. (Currently Amended) ~~The photoelectric~~Photoelectric detection device according to Claim 1, ~~wherein~~characterized in that the photosensitive material (3) is based ~~on~~comprises silicon alloyed with hydrogen, germanium or carbon.

Claims 9 and 10 (Cancelled)